

In the Claims:

1.-4. (Canceled)

5. (Currently Amended) A device as in claim 4 23, where said [device] lensing element is made of polystyrene latex.

6. (Currently Amended) A device as in claim 4 23, where said [device] lensing element is made of glass.

7. (Currently Amended) A device as in claim 4 23 [consisting of] further comprising multiple lens elements attached together.

8.-22. (Canceled)

Please add claims 23-56 to read as follows:

23. (New) An optical device comprising:
a spherical lensing element having a diameter of 10 μ m or less, the spherical lensing element configured to collimate incident light to generate a collimated light beam; and
an optical imaging element receiving the collimated light beam.

24. (New) The optical device of claim 23 wherein the incident light is generated by a source element having a diameter of 10 μ m or less that is in physical contact with the spherical lensing element, the diameter of the source element smaller than the diameter of the lensing element.

25. (New) The optical device of claim 24 wherein the incident light is generated by fluorescence of the source element.

26. (New) The optical device of claim 24 wherein the optical imaging element is configured to detect an amplitude of the collimated light beam.

27. (New) The optical device of claim 26 wherein the optical imaging element is configured to detect an angle of orientation of the linked source and lensing elements relative to the optical imaging element.

28. (New) The optical device of claim 26 wherein the optical imaging element is configured to detect a rate of change of an angle of orientation of the joined source and lensing elements relative to the optical imaging element.

29. (New) The optical device of claim 26 wherein the optical imaging element comprises a photodetector.

30. (New) The optical device of claim 23 wherein the incident light is emitted from a surface of an object that is to be imaged.

31. (New) The optical device of claim 29 wherein the lensing element is configured to receive the incident light reflected from the surface.

32. (New) The optical device of claim 30 wherein the lensing element is configured to receive the incident light generated by fluorescence of the object.

33. (New) The optical device of claim 30 wherein the optical imaging element comprises a photodetector.

34. (New) The optical device of claim 30 wherein the diameter of the optical imaging element is smaller than a wavelength of the incident light, thereby enabling a resolution greater than a diffraction limit of the radiation.

35. (New) The optical device of claim 30 further comprising optical tweezers holding the lensing element over the surface.

36. (New) The optical device of claim 23 wherein the lensing element is configured to receive a laser beam emitted by a laser.

37. (New) The optical device of claim 36 wherein the lensing element is positioned on an output mirror of the laser.

38. (New) The optical device of claim 36 wherein the laser is a diode laser emitting a laser beam having a width of less than 10 μ m, such that the entire width of the laser beam is collimated by the lensing element.

39. (New) The optical device of claim 23 end of an optical fiber.

40. (New) The optical device of claim 39 wherein the lensing element is positioned on the end of the optical fiber.

41. (New) The optical device of claim 39 wherein the lensing element is configured to improve a coupling efficiency of the light.

42. (New) A method of focusing light comprising collimating incident light with a spherical lensing element having a diameter of 10 μ m or less.

43. (New) The method of claim 42 further comprising generating the incident light from a source element having a diameter of 10 μ m or less in physical contact with the spherical lensing element, the diameter of the source element smaller than the diameter of the lensing element.

44. (New) The method of claim 43 wherein the incident light is generated by fluorescence of the source element.

45. (New) The method of claim 42 further comprising detecting an amplitude of the collimated light.

46. (New) The method of claim 45 further comprising correlating the amplitude of the collimated light with an angle of orientation of the linked source and lensing elements relative to an optical imaging element.

47. (New) The method of claim 46 wherein the correlation comprises determining a rate of change of an angle of orientation of joined source and lensing elements relative to the optical imaging element.

48. (New) The method of claim 42 wherein the incident light is emitted from a surface of an object that is to be imaged.

49. (New) The method of claim 48 wherein the incident light is reflected from the surface.

50. (New) The method of claim 48 wherein the incident light is generated by fluorescence of the object.

51. (New) The method of claim 48 wherein the diameter of the optical imaging element is smaller than a wavelength of the incident light, thereby enabling a resolution greater than a diffraction limit of the radiation.

52. (New) The method of claim 48 further comprising holding the lensing element over the surface with optical tweezers.

53. (New) The method of claim 42 wherein the incident light is a laser beam.

54. (New) The method of claim 53 further comprising positioning the lensing element on an output mirror of a laser generating the laser beam.

55. (New) The method of claim 53 wherein the laser beam is emitted from a laser diode and has a width of less than 10 μm , such that an entire width of the laser beam is collimated by the lensing element.

56. (New) The method of claim 42 further comprising positioning the lensing element on an end of an optical fiber such that a coupling efficiency of the incident light is achieved.